

Flight Scientist Report

Monday 09/21/2020 ACTIVATE RF36

Flight Type: Statistical Survey Flight: ZIBUT to KENDA

Flight Route: KLFY ATLIC ZIBUT KENDA ZIBUT ATLIC KLFY KFAF KLFY

Special Notes:

Excellent day for cloudy ensembles with cooler air outbreak conditions; the Worldview image today is exceptional. Falcon experienced issues though with heat. Lots of sea salt today owing to very high winds.

King Air

Flew 4 hours

1st dropsonde failed (parachute didn't open); other 5 worked fine.

Did overflight along with Falcon too

Falcon

AMS filament was tripped initially and then had to be restarted right before take off. Took off 13 min after UC-12.

Environmental control unit failed which led to APU issues; this led to heating in the aircraft.

103.7 F right before landing; UFCPC had issues

CCN worked in pre-flight but during taxi the flows started oscillating. Air pump may be the issue.

Lost camera during flight probably during heat

Accumulation of salt on the SPEC probes so had issues with high volumes of data being collected.

5 complete cloud ensembles – good cloudy day

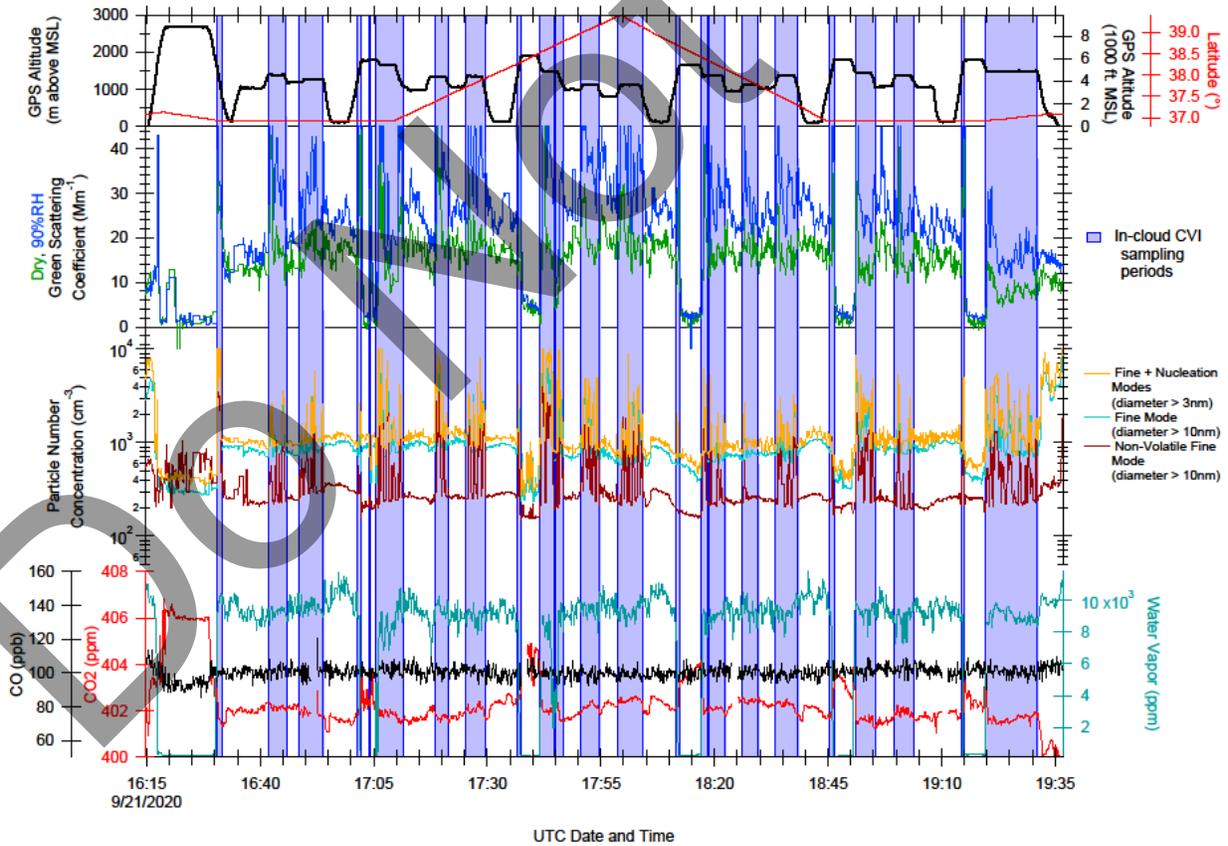
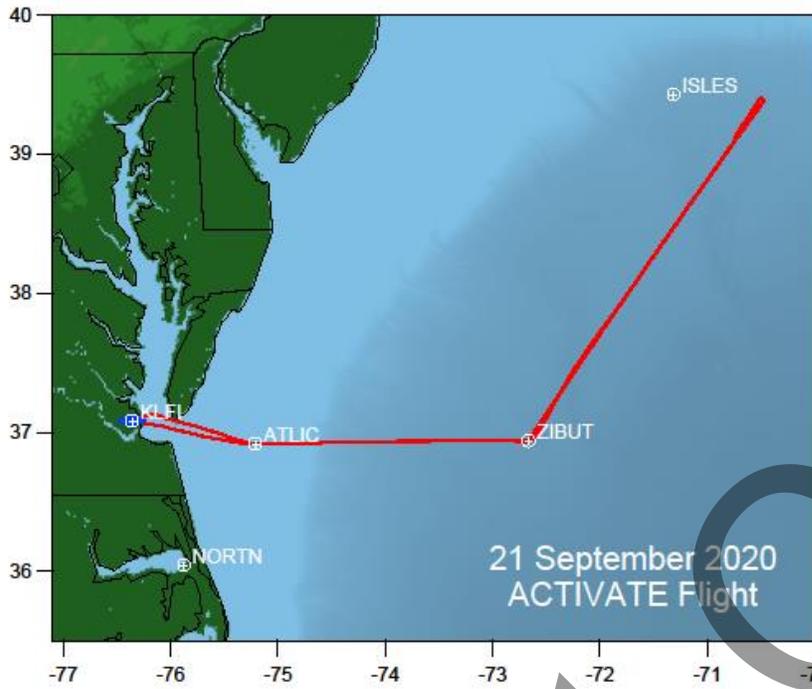
10 CW samples

Nd was mostly stable at 300 cm⁻³

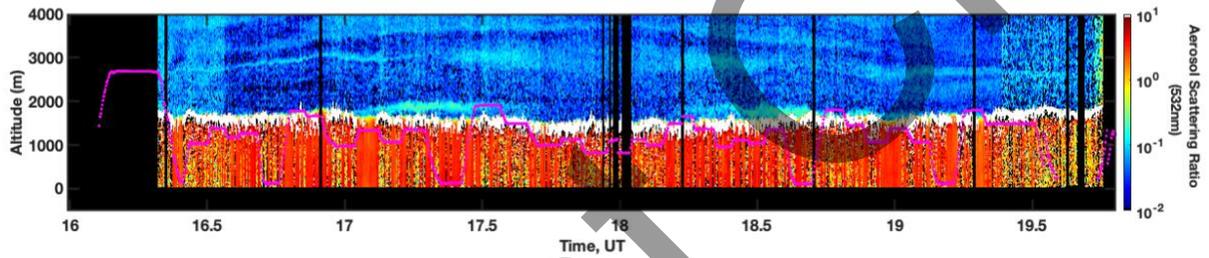
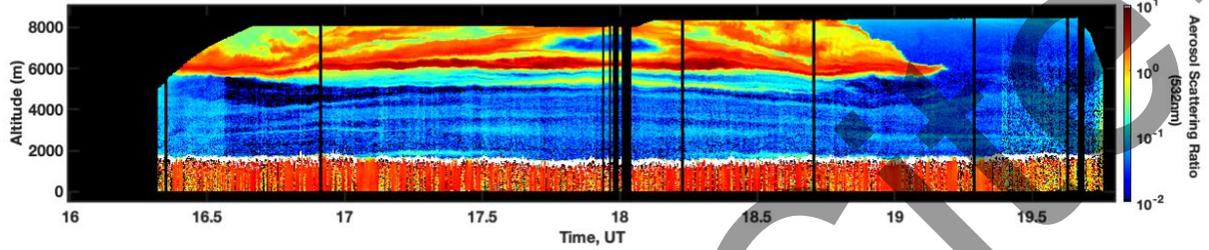
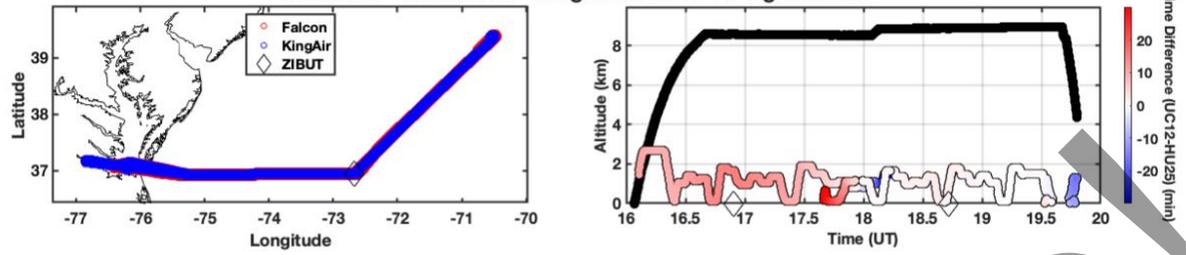
Not much organic relative to sulfate

20 ft swell; very salt day as salt covered a lot of the aircraft

Rich Moore Quicklook Images:



20200921 - ACTIVATE - KingAir and Falcon flight tracks



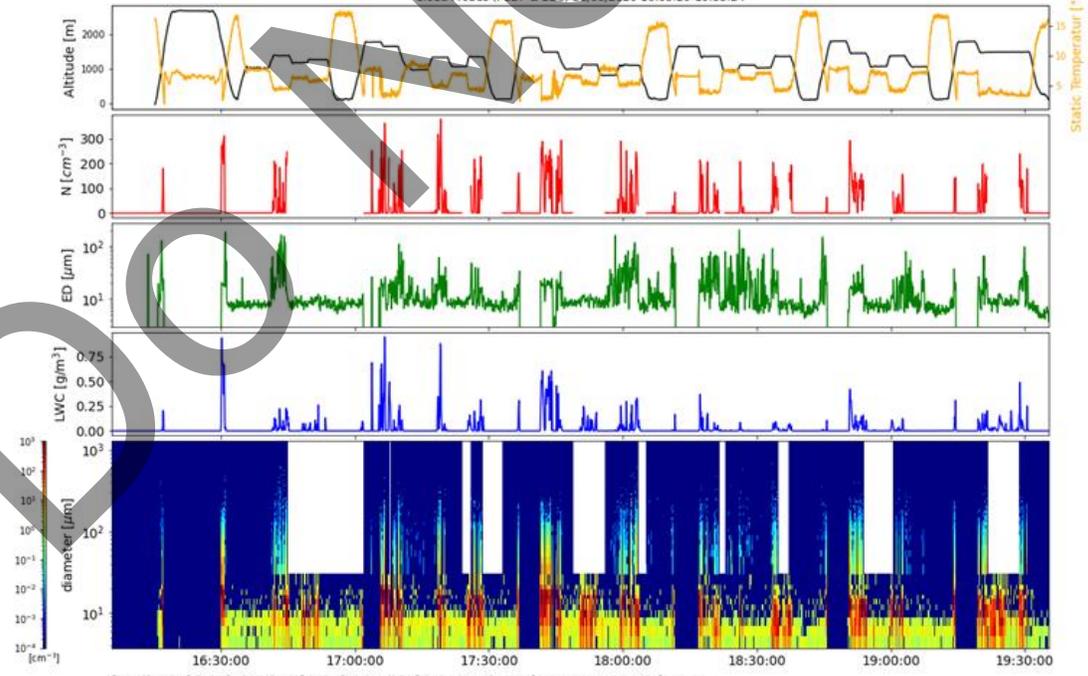
Quicklook ACTIVATE Cloud Probes (FCDP & 2DS)

preliminary data, only for quicklook use

Simon Kirschler, Raphael Märki, Christiane Voigt, Richard Moore, Ewan Crosbie



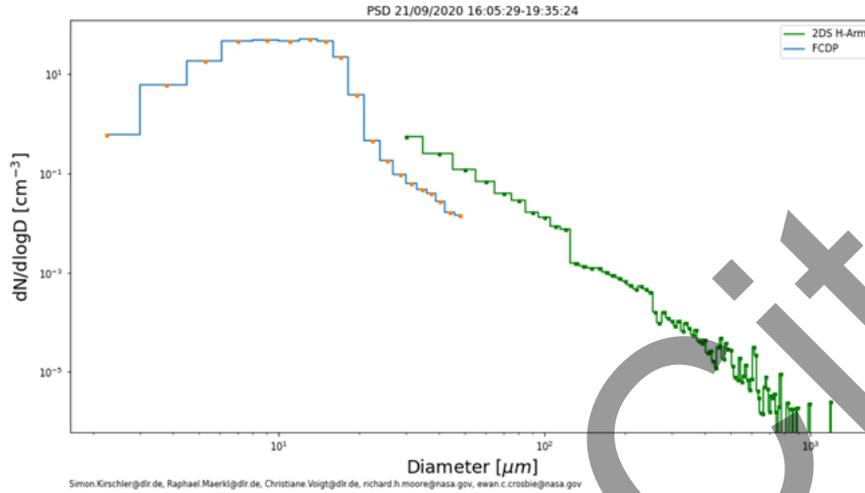
Cloud Probes (FCDP & 2DS) 21.09/2020 16:05:29-19:35:24



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PSD ACTIVATE

preliminary data, only for quicklook use
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16:16

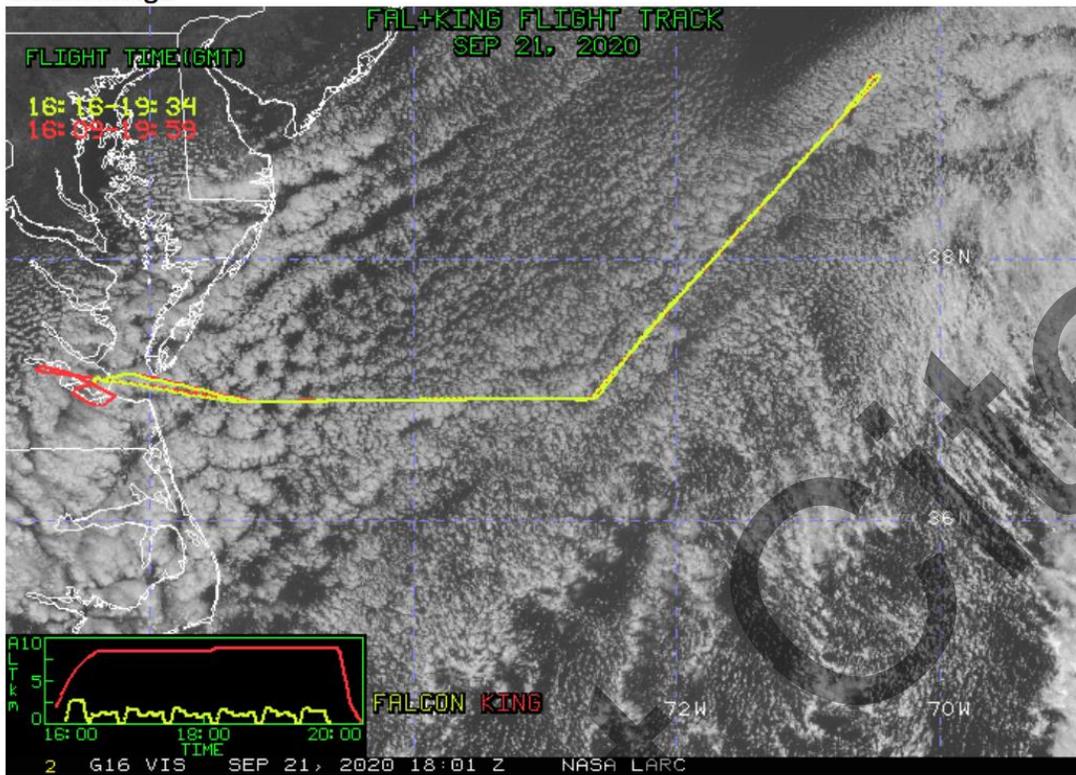


16:17

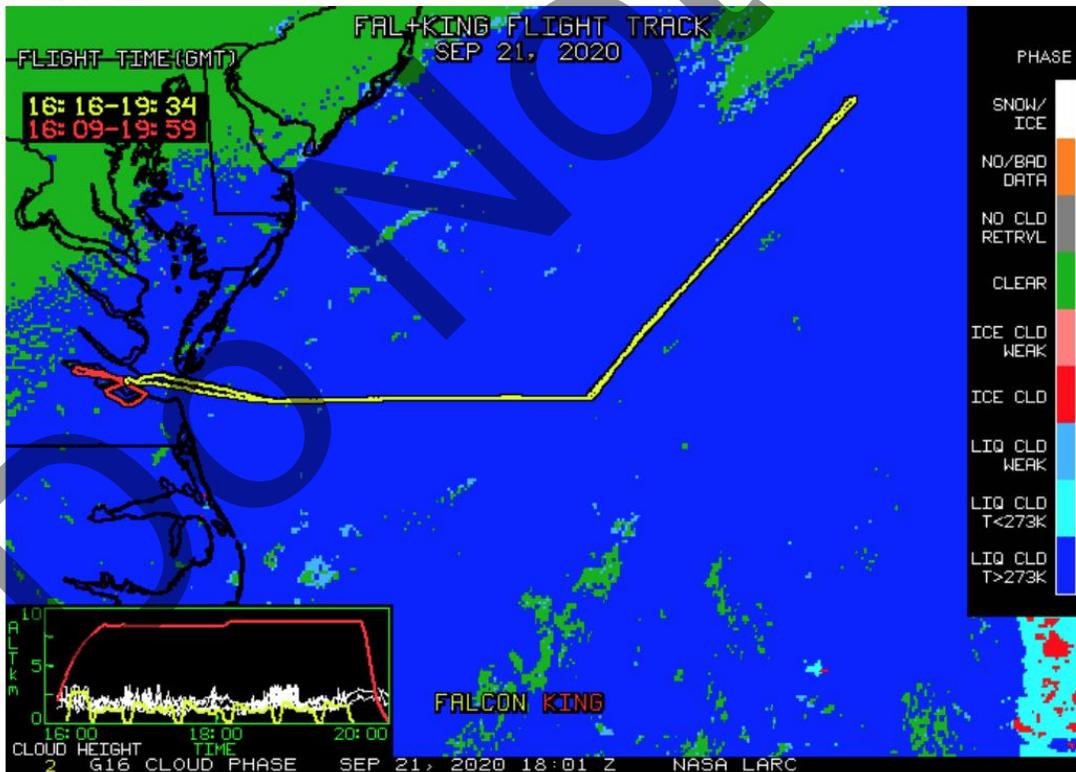


NASA-LaRC Clouds Group GOES-16 Quicklook Images for Flight 36, 1801 UTC Sep 21, 2020

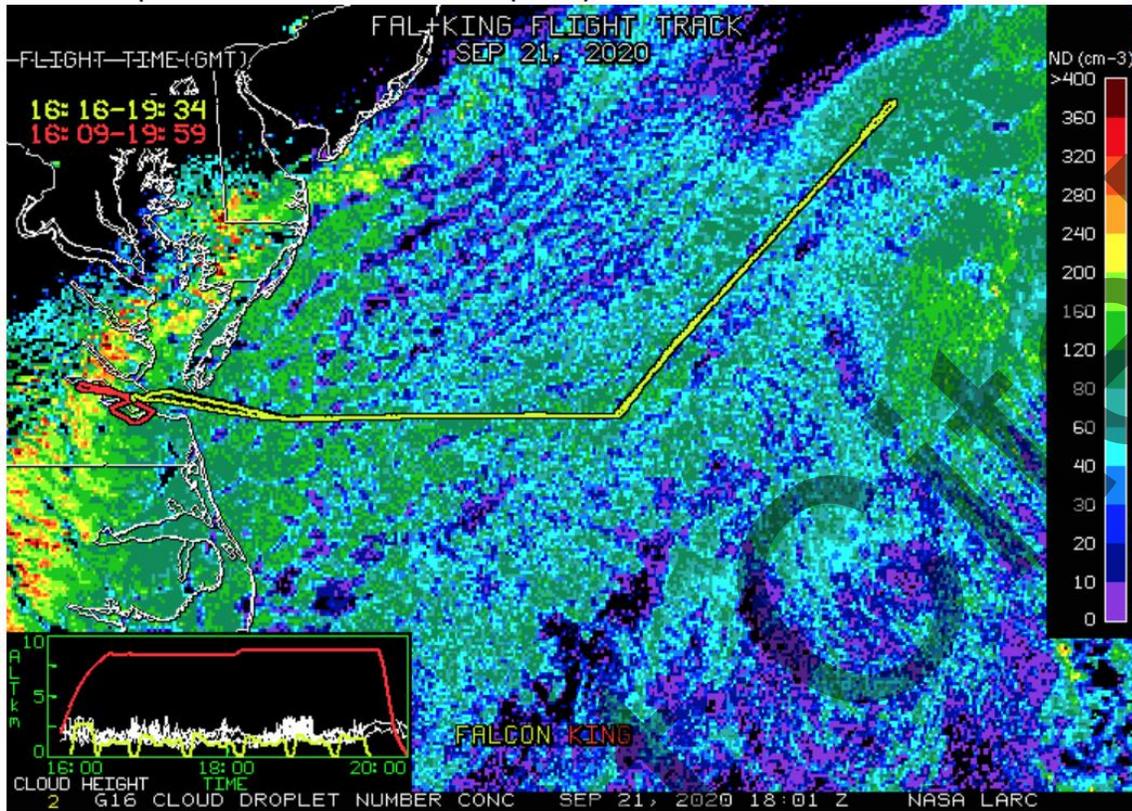
Visible Image



Cloud Phase



Cloud Droplet Number Concentration (cm-3)



Cloud-Top Height (Kft-ASL)

